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SEQUENCE LISTING

<10> Athena Diagnostics

<120> COMPOSITIONS AND METHODS FOR GENETIC ANALYSIS OF POLYCYSTIC KIDNEY DISEASE

<130> 1133/2002

<140> US 10/083,246

<141> 2002-02-26

<160> 168

<170> PatentIn version 3.1

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<211> 14136

<212> DNA

<213> Homo sapiens

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 <223> Synthetic primer

<400> 32  
 gccccgcgcg aaatgatatc ttttcttttc ttca 34

<210> 33  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
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 <222> (1)..(30)  
 <223> Synthetic primer

<400> 33  
 cccccgcccg aactttccca ttagtgcaag 30  
 <210> 34  
 <211> 36  
 <212> DNA  
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 <222> (1)..(36)  
 <223> Synthetic primer

<400> 34  
 cgccgcccc gcccggtgga tagagaggta ctttca 36  
 <210> 35  
 <211> 39  
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 <213> Artificial Sequence  
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 <222> (1)..(39)  
 <223> Synthetic primer

<400> 35  
ccgccgcccc cgccgctttt tcaaagatgt ttcctttgc

39

<210> 36

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 36  
tatcaccgag tgccaatgag

20

<210> 37

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(35)

<223> Synthetic primer

<400> 37  
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35

<210> 38

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(35)

<223> Synthetic primer



<222> (1)..(39)  
 <223> Synthetic primer

<400> 41  
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<210> 42

<211> 32

<212> DNA

<213> Artificial Sequence

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<400> 42  
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<210> 43

<211> 39

<212> DNA

<213> Artificial Sequence

<220>  
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 <222> (1)..(39)  
 <223> Synthetic primer

<400> 43  
 cgccgcccc gcccgaaaac aatgctcatt ttatgtcag 39

<210> 44

<211> 39

<212> DNA

<213> Artificial Sequence



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<220>
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<222> (1)..(39)
<223> Synthetic primer
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```
<400> 44
ccgccgcccc cgccgaaacc aagtctttta tttttctc
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<210> 45

<211> 39

<212> DNA

<213> Artificial Sequence

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<222> (1)..(39)  
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```
<400> 45
ccgccgcccc cgccggatga atgttatctg tatcctctc
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<210> 46

<211> 37

<212> DNA

<213> Artificial Sequence

```
<220>
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<222> (1)..(37)
<223> Synthetic primer
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```
<400> 46
cgccgcccc gcccgcaaa ttctgcaat tccttta
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<210> 47

<211> 32



<210> 50  
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 <222> (1)..(20)  
 <223> Synthetic primer

<400> 50  
 cgtcgctcag cagcaggtcg 20  
 <210> 51  
 <211> 19  
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 <213> Artificial Sequence  
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 <222> (1)..(19)  
 <223> Synthetic primer

<400> 51  
 cgtcctgctt cccgtcccg 19  
 <210> 52  
 <211> 42  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(42)  
 <223> Synthetic primer

$$\begin{pmatrix} x \\ y \end{pmatrix} = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 & i \\ 0 & 1 \end{pmatrix} \begin{pmatrix} u \\ v \end{pmatrix}, \quad \begin{pmatrix} u \\ v \end{pmatrix} = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -i \\ 0 & 1 \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix}. \quad \text{or} \quad \begin{pmatrix} u \\ v \end{pmatrix} = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -i \\ 0 & 1 \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix}$$

```
<400> 52
g c g g c c c g c c g c c c c c g c c g t t g g g g a t g c t g g c a a t g t g t g
```

42

<210> 53

<211> 20

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<213> Artificial Sequence

 $\langle 220 \rangle$ 

```
<221> misc_feature
```

$$\langle 222 \rangle \quad (1) \cdot \cdot (20)$$

<223> Synthetic primer

```
<400> 53
gggattcggc aaagctgatg
```

20

<210> 54

<211> 20

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

```
<221> misc_feature
```

$$\langle 222 \rangle \quad (1) \cdot \bar{(20)}$$

<223> Synthetic primer

```
<400> 54
ttccatcagc tttgccgaat
```

20

<210> 55

<211> 21

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

```
<221> misc_feature
```

$$\langle 222 \rangle \quad (1) \cdot \bar{(21)}$$

<223> Synthetic primer

<400> 55  
atctgggtctc aagcctggaa g 21

<210> 56

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(49)

<223> Synthetic primer

<400> 56  
gccccgcgcc cgtcccgccg cccccgccga gacccttccc accagacct 49

<210> 57

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(31)

<223> Synthetic primer

<400> 57  
cgcccccgcc cgtgagccct gccagtgctc t 31

<210> 58

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(41)  
<223> Synthetic primer

<400> 58  
gcggcccgcc gcccccgccg gagccaggag gagcagaacc c 41

<210> 59

<211> 22

<212> DNA

<213> Artificial Sequence

<220>  
<221> misc\_feature  
<222> (1)..(22)  
<223> Synthetic primer

<400> 59  
cagagggaca ggcaggcaaa gg 22

<210> 60

<211> 28

<212> DNA

<213> Artificial Sequence

<220>  
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<223> Synthetic primer

<400> 60  
gcccccgccg cccagccctc cagtgcct 28

<210> 61

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 61

atcgctatgt gctgcctggg

20

<210> 62

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(18)

<223> Synthetic primer

<400> 62

ccgaggtgga tgccgctg

18

<210> 63

<211> 21

<212> DNA

<213> Artificial Sequence

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<221> misc\_feature

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<223> Synthetic primer

<400> 63

gaaggggagt gggcagcaga c

21

<210> 64

<211> 21  
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<400> 64  
 cactgaccgt tgacacccctc g 21

<210> 65  
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 <222> (1)..(21)  
 <223> Synthetic primer

<400> 65  
 tgccccagtg cttcagagat c 21

<210> 66  
 <211> 19  
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 <222> (1)..(19)  
 <223> Synthetic primer

<400> 66  
 ggagtgccct gagccccct 19



<210> 67  
<211> 19  
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<223> Synthetic primer

<400> 67  
cccctaacca cagccagcg 19  
<210> 68  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
<220>  
<221> misc\_feature  
<222> (1)..(21)  
<223> Synthetic primer

<400> 68  
tctgttcgtc ctggtgtcct g 21  
<210> 69  
<211> 21  
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<220>  
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<222> (1)..(21)  
<223> Synthetic primer

<400> 69  
gcaggagggc aggttgtaga a 21

<210> 70

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(40)

<223> Synthetic primer

<400> 70  
gcggcccgcc gcccccgccg ggtaggggga gtctgggctt 40

<210> 71

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(17)

<223> Synthetic primer

<400> 71  
gaggccaccc cgagtcc 17

<210> 72

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 72  
gttgggcac tctgacggtg 20

<210> 73

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(35)

<223> Synthetic primer

<400> 73  
cgccgcccc gcccggaag gtggcctgag gagat 35

<210> 74

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(37)

<223> Synthetic primer

<400> 74  
gcggcccgcc gccccgccc ggggtccacg ggccatg 37

<210> 75

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

[illegible]

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<222> (1)..(20)
<223> Synthetic primer
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<400> 75
aagcccagca gcacggtgag 20
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<210> 76

<211> 34

<212> DNA

<213> Artificial Sequence

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<220>
<221> misc_feature
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<223> Synthetic primer
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<400> 76  
ccgcgcgcgc ccgcgcgtgcc ctgcctgtgc cctg 34

<210> 77

<211> 51

<212> DNA

<213> Artificial Sequence

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<220>
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<222> (1)..(51)
<223> Synthetic primer
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<400> 77  
gccccgcgcc cgtcccgccg cccccgcccg ttccaccacc acgtccacca c 51

&lt;210&gt; 78

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

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<222> (1)..(21)

<223> Synthetic primer

<400> 78

gtggtggacg tgggtggtgga a

21

<210> 79

<211> 21

<212> DNA

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<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 79

ggctgctgcc ctactggga a

21

<210> 80

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

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<400> 80

taagggcaga gtcctccaca g

21

<210> 81

<211> 22  
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<400> 81  
 ccacccccgc ccacctactg ag 22

<210> 82  
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<400> 82  
 gcggcccgcc gcccccgccg tggaggagg gacgccaatc 40

<210> 83  
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<400> 83  
 gaggctgggg ctgggacaa 19

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<210> 84
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<223> Synthetic primer
```

```
<400> 84
cccggttcac tcactgcg 18
```

```
<210> 85
<211> 30
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<223> Synthetic primer
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```
<400> 85
cccccgcgccg ccgtgctcag agcctgaaag 30
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```
<210> 86
<211> 38
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<223> Synthetic primer
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38

<211> 36

<213> Artificial Sequence

<223> Synthetic primer

36

<213> Artificial Sequence

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18

<213> Artificial Sequence

<223> Synthetic primer





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<221> misc_feature
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<223> Synthetic primer
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```
<400> 92
ctggaggtgc tgcgcgtt 18
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<210> 93

<211> 30

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

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<221> misc_feature
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 $\langle 222 \rangle \quad (1) \dots (30)$ 

<223> Synthetic primer

<400> 93  
cgcccccgcc cgctggctcc acgcagatgc 30

<210> 94

<211> 18

<212> DNA

<213> Artificial Sequence

 $\langle 220 \rangle$ 

<221> misc feature

<222> (1) . . (18)

<223> Synthetic primer

```
<400> 94
cgtgaacagg gcgcatta 18
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&lt;210&gt; 95

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

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<223> Synthetic primer

<400> 95

cccccgcccg gcagcagaga tggtgttgga c

31

<210> 96

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

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<222> (1)..(36)

<223> Synthetic primer

<400> 96

ccgcgcgcgc cgccgccagg ctctatctt gtgaca

36

<210> 97

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<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 97

tgaagtcacc tgtgctgttg t

21

<210> 98

<211> 19  
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 <222> (1)..(19)  
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<400> 98  
 ctacctgtgg gatctgggg 19

<210> 99  
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<400> 99  
 tgctgaagct cacgctcc 18

<210> 100  
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 <223> Synthetic primer

<400> 100  
 gggctcgtcg tcaatgcaag 20

<210> 101  
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 <222> (1)..(40)  
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<400> 101  
 cgccgcccc gcccgccgc caccacctgc agccctcta 40

<210> 102  
 <211> 40  
 <212> DNA  
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 <222> (1)..(40)  
 <223> Synthetic primer

<400> 102  
 gcggcccgcc gcccccgcc ccgcccagga cagcatcttc 40

<210> 103  
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 <220>  
 <221> misc\_feature  
 <222> (1)..(18)  
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<400> 103  
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<210> 104

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(24)

<223> Synthetic primer

<400> 104  
ggccggcagc ggcaaaggct tctc 24

<210> 105

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(19)

<223> Synthetic primer

<400> 105  
gcccagcacc agctcacat 19

<210> 106

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 106  
cgagccattt accaccata g 21

<210> 107

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 107  
ggcagccagc aggatctgaa 20

<210> 108

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

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<222> (1)..(21)

<223> Synthetic primer

<400> 108  
ctgtgggcca gcagcaaggt g 21

<210> 109

<211> 21

<212> DNA

<213> Artificial Sequence

<220>





<213> Artificial Sequence

<220>

<221> misc\_feature

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<400> 112

ttggaggccc acgttgacct g

21

<210> 113

<211> 31

<212> DNA

<213> Artificial Sequence

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<221> misc\_feature

<222> (1)..(31)

<223> Synthetic primer

<400> 113

ccccgcccc catgggtgtg gacgggtgag g

31

<210> 114

<211> 20

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<221> misc\_feature

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<400> 114

taaaactgga tggggctctc

20

<210> 115

<211> 18  
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<400> 115  
 ggctccacc agcactaa 18  
 <210> 116  
 <211> 20  
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 <220>  
 <221> misc\_feature  
 <222> (1)..(20)  
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<400> 116  
 gggccccca gtccttccag 20  
 <210> 117  
 <211> 17  
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<400> 117  
 tccccagccc gccacaa 17

<210> 118  
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 <222> (1)..(20)  
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<400> 118  
 gccccctcac cacccttct 20  
 <210> 119  
 <211> 21  
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 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(21)  
 <223> Synthetic primer

<400> 119  
 tcccgtgct cccccacgc a 21  
 <210> 120  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <221> misc\_feature  
 <222> (1)..(18)  
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<400> 120  
gatgccgtgg ggaccgtc 18

<210> 121

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 121  
gtgagcaggt ggcagtctcg 20

<210> 122

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 122  
ccaccccctc tgctcgtagg t 21

<210> 123

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(19)

<223> Synthetic primer

[illegible]

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<400> 123
gggtcccaagc acgcatgca
19

<210> 124

<211> 22

<212> DNA

<213> Artificial Sequence

<220>
<221> misc_feature
<222> (1)..(22)
<223> Synthetic primer
```

```

<400> 124
tgccggcctc ctgcgctgct ga
22

<210> 125

<211> 29

<212> DNA

<213> Artificial Sequence

<220>
<221> misc_feature
<222> (1)..(29)
<223> Synthetic primer

```

<400>	125	
gcggggcaggg tgagcaggtg gggccatcc		29
<210>	126	
<211>	26	
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<213>	Artificial Sequence	
<220>		

<221> misc\_feature  
<222> (1)..(26)  
<223> Synthetic primer

<400> 126  
gaggctgtgg ggggccagtc aagtgg

26

<210> 127

<211> 25

<212> DNA

<213> Artificial Sequence

<220>  
<221> misc\_feature  
<222> (1)..(25)  
<223> Synthetic primer

<400> 127  
agggaggcag aggaaagggc cgaac

25

<210> 128

<211> 29

<212> DNA

<213> Artificial Sequence

<220>  
<221> misc\_feature  
<222> (1)..(29)  
<223> Synthetic primer

<400> 128  
cgtcccgccct gcactgacct cacgcatgt

29

<210> 129

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(41)

<223> Synthetic primer

<400> 129

cgccccgccg cccccgccg gccaaaggga aagggattgg a

41

<210> 130

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(21)

<223> Synthetic primer

<400> 130

ccgcggagcc tgctgtgcta t

21

<210> 131

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_feature

<222> (1)..(39)

<223> Synthetic primer

<400> 131

ccgcccccc cgcccgttg gtggagacgg tgtagttgc

39

<210> 132

<211> 21  
 <212> DNA  
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<400> 132  
 tccaatccct ttccctttgg c 21

<210> 133  
 <211> 22  
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 <222> (1)..(22)  
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<400> 133  
 cagcagccca tgaaacagaa ag 22

<210> 134  
 <211> 21  
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 <220>  
 <221> misc\_feature  
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<400> 134  
 tatgctttca ggcccgtagg a 21



<210> 135  
 <211> 23  
 <212> DNA  
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 <220>  
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 <222> (1)..(23)  
 <223> Synthetic primer

<400> 135  
 agagcccata cccggtccag tcc 23

<210> 136  
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 <223> Synthetic primer

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aaatacaact gtcagcaaca ta

22